

# **CHAPTER J2**

## **TABLE OF CONTENTS**

|         |   |
|---------|---|
| J2.00   | General                                     |
|         | J2.00.1 Public Contact                      |
| J2.01   | Drawbridge Operations                       |
|         | J2.01.1 Rules and Regulations               |
|         | J2.01.2 Data to be Posted                   |
|         | J2.01.3 Duties of Drawbridge Operators      |
| J2.02   | Tunnel and Tube Operations                  |
|         | J2.02.1 Duties to be Posted                 |
|         | J2.02.2 Duties of Tunnel and Tube Operators |
| J2.03   | Ferry Operations                            |
|         | J2.03.1 Rules and Regulations               |
|         | J2.03.2 Duties to be Posted                 |
| J2.03.3 | Duties of Ferry Operators                   |

## **J2.00    General**

This chapter contains information relevant to the Highway Operations Program HM46.

The goal of the Highway Operation Program is to provide appropriate levels of transportation service on the existing highway system through the operation of roadway facilities such as drawbridges, ferries, tubes and tunnels. These facilities have been provided by previous improvement programs and are operated under this program. Electricity required to energize overhead lights, signals, and all other electrical facilities is also provided by this program.

Refer to Volume 2 of the Maintenance Manual for administrative details covering this program.

### **J2.00.1   Public Contact**

Operators of the drawbridges, tunnels, tubes, and ferries have frequent contact with the public.

Maintenance personnel shall remember at all times that they are representatives of Caltrans.

They should perform their duties quickly and with courtesy.

Such employees shall under no circumstance engage in any argument. Any criticism of highway matters, or any request for information which, cannot be readily answered or supplied, are to be referred to the employee's supervisor.

## **J2.01    Drawbridge Operations**

Drawbridges shall be maintained in a serviceable condition and shall be operated at intervals frequent enough to make certain that the machinery is in proper operating condition.

Drawbridges shall be fully opened to preclude the possibility of collision between vessels and the moveable spans.

### **J2.01.1   Rules and Regulations**

All drawbridges shall be operated in accordance with the "California Drawbridge Regulations (1986)" issued by the United States Coast Guard and such other instructions as may be issued by the Department of Transportation.

Bridges must have navigational lights in accordance with Title 33, part 68 of the Code of Federal Regulations.

**DRAWBRIDGE, TUNNEL, TUBE AND FERRY OPERATIONS**

June 1998

Page J2-3

---

Bridges presenting obstructions to air navigation are lighted in accordance with the requirements of "Obstruction Marking and Lighting" as issued by the Federal Aviation Agency. All personnel charged with the operation of drawbridges shall be familiar with their duties and responsibilities under these regulations. Visitors will be allowed only with prior approval of the supervisor of this facility. Visits shall be kept brief and occasional.

**J2.01.2 Data to be Posted**

One copy of each of the following shall be posted at each drawbridge control house. By posting it is meant to attach to one wall of the control room in a noticeable location or placing in a clearly labeled binder or file.

- (A) This Maintenance Manual.
- (B) "California Drawbridge Regulations (1986)" issued by the United States Coast Guard.
- (C) "Aids to Navigation" CG-208, U.S. Coast Guard. This publication is no longer updated by the U.S. Coast Guard, but the information pertaining to the navigation lights is still valid.
- (D) A separate listing of the boat signals for the particular bridge.
- (E) "General Operating Instructions" posted in a prominent location near the controls.
- (F) Special or supplemental orders or maintenance manuals which apply to the particular bridge.
- (G) "Obstruction Marking and Lighting", Federal Aviation Agency (only at bridges where air navigation lights are installed).
- (H) Print of the schematic wiring diagram if the bridge is electrically operated.
- (I) Superintendent's name, address, and telephone number.
- (J) Name and telephone number of Area Bridge Maintenance Engineer assigned to the District.

**CHAPTER J2**

**DRAWBRIDGE, TUNNEL, TUBE AND FERRY OPERATIONS**

**June 1998**

**Page J2-4**

---

**J2.01.3 Duties of Drawbridge Operators**

It shall be the duty of the drawbridge operator to operate the bridge in accordance with Section J2.01.1 "Rules and Regulations". The operator shall be familiar with the operation of all switches, breakers and other safety or operating equipment and he or she shall keep a daily log showing all operating information.

A special report shall be made of accidents, either involving the public or the equipment, which occur within the area of duty. The operator shall also make such reports as are required by the United States Coast Guard.

All reports shall be forwarded to the drawbridge operator's supervisor, who in turn shall forward them to the District Office. Reports shall be available for use by the Legal Service Center, without alteration, but accompanied by such recommendation or comment as the matter justifies, so that all matters, particularly repairs, will receive attention by the proper parties without unnecessary delay.

Whenever operating difficulties or conditions that require early attention are encountered, the drawbridge operator shall immediately report the full details to the supervisor. Any verbal report must be confirmed in writing. In order to have definite records available at the bridge for the information of inspectors or repair crews, drawbridge operators shall be provided with a bound memorandum book and shall list in this book a record of all difficulties experienced in the handling of the bridge. The records will be of sufficient detail to aid in tracing the trouble. The books will be kept in the bridge control house.

Matters of importance shall be reported immediately by telephone, radio or messenger. If contact cannot be made with the Superintendent or the District Office, the Structures Maintenance representative in Sacramento shall be called.

The drawbridge operator shall be thoroughly familiar with emergency operating procedures especially the use of the bypass switches.

The drawbridge operator shall also be responsible for policing the control house and the immediate area of the bridge. Burned out lamps shall be replaced and light fixtures and windows shall be kept clean.

Particular attention shall be given to the maintenance of the navigation lights. Grease and oil shall be cleaned up. Newspapers, magazines and other trash shall not be allowed to accumulate.

The drawbridge operator is responsible for all operations within the hours of their assigned shift; for their relief person being capable of performing the tasks required; for any articles brought into the control house that will cause a distraction from their assigned duties; and for shift changes being made as scheduled.

The duties of drawbridge operators are such that mistakes may easily result in serious accidents.

All consideration for safety must be observed. Before opening the bridge, the drawbridge operator shall thoroughly check that all pedestrians or vehicles are safely behind the provided barriers and that the movable portion of the bridge is free of vehicles and pedestrians.

## **J2.02 Tunnel and Tube Operations**

### **J2.02.1 Data to be Posted**

One copy of each of the following shall be posted in each tunnel (tube) control room. By posting it is meant to attach to one wall of the control room in a noticeable location or placing in a clearly labeled binder or file.

- (A) This Maintenance Manual.
- (B) Special supplemental orders or maintenance manuals that apply to the particular tunnel (tube) including all wiring diagrams.
- (C) Instructions covering the operator's duties in case of fire in or about the tunnel (tube).
- (D) Superintendent's name, address and telephone number.
- (E) Name and telephone number of the Area Bridge Maintenance Engineer assigned to the district.

### **J2.02.2 Duties of Tunnel and Tube Operators**

Operators shall operate the tunnel (tube) operating system consisting of the ventilating fans and drives, electrical and lighting systems, the carbon monoxide analyzer systems, telephone and fire alarm systems and other auxiliary equipment.

A bound logbook shall be provided in the control room of each tunnel (tube). The operators shall keep a record of all events affecting the operation of the tunnel (tube) in the logbook. All operating difficulties shall be recorded in the logbook, however, the details of the difficulty shall be recorded in the bound memorandum book mentioned later in this section.

A special report shall be made of accidents, either involving the public or the equipment, which occur within the area of duty. All reports shall be made in duplicate. One copy shall be placed in a binder provided for that purpose and retained at the tunnel (tube). The original shall be forwarded to the operator's supervisor, who in turn shall forward it to the District Office without alteration.

The reports will be accompanied by such recommendations or comments as the matter justifies, so that all matters, particularly repairs, will receive attention by the proper parties without unnecessary delay.

Whenever operating difficulties or conditions that require early attention are encountered, the operator shall immediately report the full details to the supervisor. Any verbal report must be confirmed in writing. In order to have definite records available at the tunnel (tube) for the information of inspectors or repair crews, operators shall be provided with a bound memorandum book and shall list in this book a record of all difficulties experienced in the operating system.

Records will be of sufficient detail to aid in tracing the trouble. The books will be kept in the control room.

Matters of importance shall be reported immediately by telephone, radio or messenger. If contact cannot be made with the Superintendent or the District Office, the Area Bridge Maintenance Engineer assigned to the District should be called.

The operator shall be responsible for policing the control room, fan rooms, and other areas in and about the tunnel. Burned out lamps shall be replaced and light fixtures and windows shall be kept clean. Grease and oil shall be cleaned up. Newspapers, magazines and other trash shall not be allowed to accumulate.

The operator is also responsible for all operations within the hours of their assigned shift; for their relief being capable of performing the tasks required; for any articles brought into the control room that will cause a distraction from their assigned duties; and for shift changes being made as scheduled.

### **J2.03 Ferry Operations**

#### **J2.03.1 Rules and Regulations**

All ferryboats shall be operated in accordance with "Rules and Regulations for Small Passenger Vessels" CG-323, as issued by the United States Coast Guard and such other instructions as may be issued by the Department of Transportation.

#### J2.03.2 Data to Be Posted

One copy of each of the following shall be posted in the operator's quarters on each ferryboat.

By posting it is meant to attach to one wall of the control house in a noticeable location or placing in a clearly labeled binder or file.

- (A) This Maintenance Manual.
- (B) Special, or supplemental orders, or maintenance manuals, which apply to the particular ferry.
- (C) Instructions covering the operator's duties in case of fire in or about the ferry.
- (D) Superintendent's name, address and telephone number.
- (E) Name and telephone number of the Area Bridge Maintenance Engineer assigned to the District.

#### J2.03.3 Duties of Ferry Operators

It shall be the duty of the ferry operator to operate the ferry in accordance with Section J2.03.1 "Rules and Regulations". He or she shall inspect the cable on cable operated ferries each shift.

The ferry operator shall keep a daily log showing all operating information and conditions warranting attention. A special report shall be made concerning all accidents, involving either the public or the equipment, which occur within the area of duty. He or she shall also make all reports required by the U.S. Coast Guard or other agencies. All reports shall be forwarded to the ferry operator's Supervisor, who in turn shall forward it to the District Office, where it shall be available for use by the Legal Service Center, without alteration, but accompanied by such recommendations or comments as the matter justifies, so that all matters, particularly repairs, will receive attention by the proper parties, without unnecessary delay.

Whenever operating difficulties, or conditions, which require early attention are encountered, the ferry operator shall immediately report the full details to his or her supervisor. Any verbal report must be confirmed in writing. In order to have definite records available at the ferry for the information of inspectors or repair crews, ferry operators shall be provided with a bound memorandum book, and shall list in this book a record of all difficulties experienced in the handling of the ferry. Records will be of sufficient detail to aid in tracing the trouble. The books will be kept in the ferry control house at all times.

**CHAPTER J2**

**DRAWBRIDGE, TUNNEL, TUBE AND FERRY OPERATIONS**

**June 1998**

**Page J2-8**

---

Matters of importance shall be reported immediately by telephone, radio or messenger. If contact cannot be made with the Superintendent or the District Office, the Area Bridge Maintenance Engineer assigned to the District should be called.

The ferry operator shall adhere to operating regulations, make every effort to avoid mistakes in operation, and give every consideration to safety. The ferry operator is responsible for all operations within the hours of their assigned shift, for their relief being capable of performing the tasks required, for any articles brought into the ferry control house that will cause a distraction from their assigned duties, and for shift changes being made as scheduled. Failure to fulfill these obligations may result in serious accidents.

Ferry tenders must not permit vehicles to leave the ferry until the apron is down and the mooring chain made fast, and the mooring must be kept fastened until the last vehicle for the trip is in place on the ferry.